

**REMARKS**

1. Rejection of claims 1, 3, 4, 6-8, 10-13, 16-18, 20-27, 29-31, 33-36 and 40-42 under 35 U.S.C. §102(b) as anticipated by EP0612818, hereafter "818".

The basis of the rejection is understood to be as follows:

EP '818 discloses electrodeposition coating compositions comprising water dispersible resins and blocked isocyanate crosslinking agents (see abstract and component 9). The dispersible resins taught as suitable include hydroxy functional tertiary amine containing acrylic resins with functional group contents meeting the limitations of the instant claims (page 4, lines 31-38). Particle sizes as claimed instantly are taught at claim 3. Applicants' claimed values for corrosion resistance and gloss retention are seen as inherent to the compositions of the reference since the chemical limitations of the instant claims are met.

(Office Action of 1/27/05, page 2)

Applicants greatly appreciate the detailed basis of rejection but must respectfully disagree.

To anticipate a claim, a single source must contain all of the elements of the claim. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986). EP '818 fails to satisfy this standard in regards to the invention of Applicants' original independent claim 1.

As set forth in the Background section of the instant Application, many prior art low VOC aqueous dispersions have traditionally required costly and expensive stripping operations during their manufacturing process. The invention of Applicants' independent claim 1 provides a solution to this problem by providing a particular aqueous dispersion that has a reduced quantity of volatile organic solvent.

Applicants' invention achieves this goal with the use of two particular elements set forth in independent claim 1. As specified in independent claim 1, Applicants' invention first requires a very specific crosslinking agent (b) and second, a polymer (a) and a crosslinking agent (b) that have been incorporated together in a very specific way. In particular, EP '818 cannot anticipate the invention of Applicants' independent claim 1 unless it (1) discloses a crosslinking agent (b) having a  $T_g$  of from 40 to 70°C/105 to 158°F that is a solid at 23.9°C/75°F when at 100% solids and (2) discloses

an aqueous dispersion wherein polymer (a) and crosslinking agent (b) have been melt mixed.

It is respectfully submitted that EP '818 fails to disclose both of these required elements.

First, EP '818 fails to disclose a crosslinking agent (b) that is a solid at 23.9°C/75°F when at 100% solids and has a  $T_g$  of from 40 to 70°C/105 to 158°F.

As indicated above, the PTO appears to take the position that any 'blocked isocyanate crosslinking agent' anticipates Applicants' crosslinking agent (b). However, to do so is to ignore both Federal Circuit precedent and the plain language of Applicants' independent claim 1.

A rejection for anticipation under section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference. *In re Paulson*, 31 U.S.P.Q.2d 1671 (Fed Cir. 1994). There must be no difference between the claimed invention and the disclosure, as viewed by a person of ordinary skill in the field of the invention. *Scripps Clinic & Res. Found. v. Genentech Inc.*, 18 U.S.P.Q.2d 1001 (Fed. Cir. 1991).

Nothing in EP '818 discloses or suggests that a 'suitable' crosslinking agent is characterized by *either* a specific  $T_g$  range or a solid state at 75°F, let alone both as required by Applicants. Rather, EP '818 merely teaches that "...any of a number of crosslinking agents or curing agents may be used." EP '818, page 5, line 41. In fact, EP '818 provides no guidance whatsoever as to the desirable  $T_g$  range for a crosslinking agent. This information is obtained only with the hindsight benefit of Applicants' teachings.

Nor does EP '818 inherently disclose Applicants' particularly required crosslinking agent (b). To support an anticipation rejection based on inherency, an examiner must provide factual and technical grounds establishing that the inherent feature necessarily flows from the teachings of the prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int'f 1990). In the absence of any statements by the PTO, it is respectfully submitted that EP '818 is devoid of any teachings that can be used to show that the selection of Applicants' particularly required crosslinking agent (b) necessarily flows from its teachings.

Second, EP '818 fails to disclose an aqueous dispersion wherein polymer (a) and crosslinking agent (b) have been melt mixed.

As indicated on page 26, paragraph [000118] of Applicants' Specification, 'melt mixing' refers to the incorporation of solid crosslinker pellets into a heated mixture of a polymer (a).

In contrast, EP '818 teaches on page 7, lines 9-24, page 8, lines 10-19, and page 9, lines 19-51, that instead of melt mixing, a solution of the crosslinking agent and volatile organic solvent is mixed with an organic solvent solution containing a polymer. Thus, EP '818 exemplifies the prior art problems that Applicants' invention resolves.

As a result, it is respectfully submitted that EP '818 fails to disclose all of the required elements of the invention set forth in Applicants' independent claim 1. In particular, EP '818 first fails to disclose a crosslinking agent (b) that is a solid at 23.9°C/75°F when at 100% solids and has a  $T_g$  of from 40 to 70°C/105 to 158°F and second fails to disclose an aqueous dispersion wherein polymer (a) and crosslinking agent (b) have been melt mixed.

Reconsideration and removal of the anticipation rejection is therefore respectfully requested as to independent claim 1. Reconsideration and removal of the rejection is likewise requested as to dependent claims 3, 4, 6-8, 10-13, 16-18, 20-27, 29-31, 33-36, and 40-42, as these claims depend from independent claim 1 and incorporate all of the limitations therein.

2. Rejection of claims 1, 3, 4, 6-8, 10-15, 20-27, 29-31, 33-37 and 40-42 under 35 U.S.C. §102(b) as anticipated by Song et al., U.S. 6,147,144, hereafter "Song" or "144".

The basis of the rejection is understood to be as follows:

Song et al. disclose electrodeposition coating composition comprising cationic resins, blocked isocyanate crosslinkers and less than 2% VOC (abstract). These compositions are further taught as comprising cationic tertiary amine functional resins with a functional group content meeting applicants' limitations and a degree of neutralization of 20-100% (column 6, lines 48-49 and synthetic example 1). Particle sizes and percent solids such as claimed instantly are taught at claim 6. Applicants claimed corrosion

resistance and gloss retention properties are seen as inherent to the compositions of the reference due to their meeting the chemical limitations of the instant claims.

(Office Action of 1/27/05, pages 2 & 3)

Applicants greatly appreciate the detailed basis of rejection but must respectfully disagree.

To anticipate a claim, a single source must contain all of the elements of the claim. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986). Song fails to satisfy this standard in regards to the invention of Applicants' original independent claim 1.

As set forth in the Background section of the instant Application, many prior art low VOC aqueous dispersions have traditionally required costly and expensive stripping operations during their manufacturing process. The invention of Applicants' independent claim 1 provides a solution to this problem by providing a particular aqueous dispersion that has a reduced quantity of volatile organic solvent.

Applicants' invention achieves this goal with the use of two particular elements set forth in independent claim 1. As specified in independent claim 1, Applicants' invention first requires a very specific crosslinking agent (b) and second, a polymer (a) and a crosslinking agent (b) that have been incorporated together in a very specific way. In particular, Song cannot anticipate the invention of Applicants' independent claim 1 unless it (1) discloses a crosslinking agent (b) having a  $T_g$  of from 40 to 70°C/105 to 158°F that is a solid at 23.9°C/75°F when at 100% solids and (2) discloses an aqueous dispersion wherein polymer (a) and crosslinking agent (b) have been melt mixed.

It is respectfully submitted that Song fails to disclose both of these required elements.

First, Song fails to disclose a crosslinking agent (b) that is a solid at 23.9°C/75°F when at 100% solids and has a  $T_g$  of from 40 to 70°C/105 to 158°F.

As indicated above, the PTO appears to take the position that any 'blocked isocyanate crosslinking agent' anticipates Applicants' crosslinking agent (b). However,

to do so is to ignore both Federal Circuit precedent and the plain language of Applicants' independent claim 1.

A rejection for anticipation under section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference. *In re Paulsen*, 31 U.S.P.Q.2d 1671 (Fed Cir. 1994). There must be no difference between the claimed invention and the disclosure, as viewed by a person of ordinary skill in the field of the invention. *Scripps Clinic & Res. Found. v. Genentech Inc.*, 18 U.S.P.Q.2d 1001 (Fed. Cir. 1991).

Nothing in Song discloses or suggests that a 'suitable' crosslinking agent is characterized by *either* a specific  $T_g$  range or a solid state at 75°F, let alone both as required by Applicants. Rather, Song merely provides two structures as illustrative of a suitable blocked polyisocyanate crosslinking agent. See '144, col 4, lines 38- 67, and col. 5, lines 26. In fact, Song is like EP '818 in that it provides no guidance whatsoever as to the desirable  $T_g$  range for a crosslinking agent. This information is obtained only with the hindsight benefit of Applicants' teachings.

Nor does Song inherently disclose Applicants' particularly required crosslinking agent (b). To support an anticipation rejection based on inherency, an examiner must provide factual and technical grounds establishing that the inherent feature necessarily flows from the teachings of the prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int'l 1990). In the absence of any statements by the PTO, it is respectfully submitted that Song is devoid of any teachings that can be used to show that the selection of Applicants' particularly required crosslinking agent (b) *necessarily flows* from its teachings.

Second, Song fails to disclose an aqueous dispersion wherein polymer (a) and crosslinking agent (b) have been melt mixed.

As indicated on page 26, paragraph [000118] of Applicants' Specification, 'melt mixing' refers to the incorporation of solid crosslinker pellets into a heated mixture of a polymer (a).

In contrast, Song teaches in col. 12, lines 15-16 that the crosslinking agent exists as a solution in MIBK. Thus, Song teaches that instead of melt mixing, a solution of the crosslinking agent and volatile organic solvent is reacted with an organic solvent

solution containing a polymer to provide the disclosed cationic electrodeposition coat. In fact, Song teaches that a stripping step is required. *See '144, col.13, lines 2-5.* Thus, Song exemplifies the prior art problems that Applicants' invention resolves.

As a result, it is respectfully submitted that Song fails to disclose all of the required elements of the invention set forth in Applicants' independent claim 1. In particular, Song first fails to disclose a crosslinking agent (b) that is a solid at 23.9°C/75°F when at 100% solids and has a  $T_g$  of from 40 to 70°C/105 to 158°F and second fails to disclose an aqueous dispersion wherein polymer (a) and crosslinking agent (b) have been melt mixed.

Reconsideration and removal of the anticipation rejection is therefore respectfully requested as to independent claim 1. Reconsideration and removal of the rejection is likewise requested as to dependent claims 3, 4, 6-8, 10-13, 16-18, 20-27, 29-31, 33-36, and 40-42, as these claims depend from independent claim 1 and incorporate all of the limitations therein.

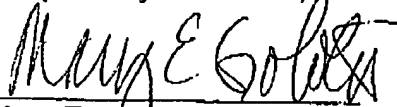
**3. Identification of allowable subject matter.**

Applicants and the Undersigned greatly appreciate the Identification of claims 2, 5, 9, 19, 28, 32 and 38-39 as allowable subject matter.

**CONCLUSION**

Applicants respectfully submit that the Application and pending claims are patentable in view of the foregoing remarks. A Notice of Allowance is respectfully requested. As always, the Examiner is encouraged to contact the Undersigned by telephone if direct conversation would be helpful.

Respectfully Submitted,



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April 27, 2005

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